

who obtained it from a dealer at Monterey, Cala., who asserted it to have been obtained alive from the bay of Monterey. Two specimens were obtained, which the possessor would neither lend nor sell; but finally Dr. Yates succeeded in obtaining one of them, which he courteously forwarded to the National Museum for examination.

It can only be compared with *S. gigas* von Martens, of Japan, in which the furrow is obsolete, and there are no secondary ribs, and the primary ribs are feeble, low, wide, and obsolete on the anterior part of the shell. If the locality is confirmed, the species is a notable addition to the Californian fauna.

VARIATIONS IN ODOSTOMIA.

BY REV. HENRY W. WINKLEY.

The question is frequently asked, why do we not have an up to date work on New England shells? The answer can be made, but only by one who is in the work. New England shells are fascinating to study, very difficult to obtain and presenting curious resemblances. Much work has been done, but there remains considerable more before the small forms can be determined in such a way as to give a true list of species. Such genera as *Bela*, *Turbonilla* and *Odostomia* represent some of the problems of the New England fauna. During the past two years the writer has been located at Branford, Conn., and opportunity is thus afforded for consultation with Prof. Verrill and his assistant Miss Bush. These two have handled the great mass of materials dredged by the Fish Commission, and one would suppose all the fauna of New England would be exhausted. On careful examination of the writer's cabinet some half dozen new species have been detected—several of these are *Odostomias*. One is from Woods Holl, another from an isolated colony in Maine, one from Prince Edward's Island, etc. As these species will be described in due time by Prof. Verrill we will not anticipate his work. Other changes in the genus *Odostomia* will be noted by him, among them some based on the following facts which the writer has been led to observe. "Binney's Gould" gives the species *O. impressa*, *bisuturalis* and *trifida* as distinct species. Let us study the three. *O. impressa* from Florida is a thick, deeply grooved shell, and at first sight

appears as a very good species. Side by side with New England specimens there is practically no difference except in the thickness of the shell. That counts for nothing in determining a species. For example take New England *Purpura lapillus* and see the thin paper shell from one region and the heavy robust one from another locality. Add now *O. bisuturalis* and *trifida*. What determines the species? Revolving lines are interesting marks, but we have no standard, variety is everywhere. I take a few examples from my own cabinet; for convenience I will number the grooves from suture to the shoulder on the last whorl 1, 2, 3, 4. Here are some results:

Branford specimens vary thus: 1000-1004-1200-1204-1234.

Woods Holl: 1000-1004-1200-1204.

Sheepscote River, Maine: 0000-1000-1200-1234+.

Prince Edwards Island: 1000-1234+.

The plus sign means that additional lines appear, usually less conspicuous, between the more usual grooves. Perhaps this list may be altered, but I let it stand. There is so much difference, some deeply grooved while others are faintly marked. The above is the result of using a good lens and strong light across the lines. It looks as if these three species would have to shake hands and be one. I may add that the specimens from Maine and Prince Edward's Island are more deeply marked than the shells from southern New England.

NOTICES OF NEW JAPANESE LAND SNAILS.

BY HENRY A. PILSBRY.

Helicina osumtensis n. sp.

Shell depressed, convex above and below, bluntly angular at the periphery, rather thin, red; striatulate, and under a strong lens showing fine spiral striae. Spire low-conic, the apex obtuse; whorls 4, scarcely convex, the last somewhat flattened above the peripheral angle. Aperture oblique, irregularly semicircular, the peristome very slightly expanded, upper margin nearly straight; a moderately thick, smooth callus on the base. Alt. $2\frac{1}{2}$, diam. 4 mm.

Kikai, province Osumi, southern Kiusiu (Mr. Y. Hirase).

Closely related to *H. verecunda* Gould (*Otia Conchologia*, p. 105) from the Loo Choo Islands, but much smaller, with the basal callus smooth, not roughened or pitted as in that species.